

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application

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Case:

3-2-2

Serial No.:

09/512,411

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Title:

MOBILE IP SUPPORTING QUALITY OF SERVICE

Group Art Unit:

2144

MAIL STOP: APPEAL BRIEF **COMMISSIONER FOR PATENTS** P.O. BOX 1450 **ALEXANDRIA, VA 22313-1450**

SIR:

APPEAL BRIEF UNDER 37 C.F.R. 41.37

i) Real party-in-interest

The real party-in-interest is Lucent Technologies Inc., 600 Mountain Ave., Murray Hill, NJ 07974-0636. Lucent Technologies Inc. is owner of the entire interest in the application-at-issue by an assignments recorded at Reel/Frame No. 012643/0830 on Feb. 26, 2002 and at Reel/Frame No. 012436/0099 on Jan. 4, 2002.

Related appeals and interferences ii)

Appellants do not know of any prior or pending Appeals, Interferences, or Judicial Proceedings directly related to, directly affecting, directly affected by, or have a bearing on the Board's decision in this Appeal.

Status of Claims iii)

Claims 1 - 8, 10, 11, and 16 - 21 have been rejected.

Herein, the rejections of claims 1-8, 10, 11, and 16-21 are appealed.

In the Final Office Action of Aug. 23, 2007 (Herein, referred to as the Final Office Action.), only pages 2 – 14 state claim rejections. Thus, any earlier claim rejections are either restated therein or waived. See 37 C.F.R. §§ 1.113(b), 1.104; M.P.E.P. § 706.07.

iv) Status of Amendments

On November 2, 2007, an After-Final Amendment was filed under 37 CFR 1.116 to amend claims 1 and 16. The amendment was entered according to an Advisory Action mailed on Dec. 31, 2007.

v) Summary of Claimed Subject Matter

For ease of reference, non-limiting reference numerals, Figures, and text citations are mentioned below. The reference numerals, Figures, and text citations relate to exemplary features.

Independent claim 1 relates to a method of establishing a session between a correspondent node (10) and a mobile node (8), the mobile node (8) having a home address in a home network (2) and being temporarily connected at a care-of address in a foreign network (6) (See e.g., Figs. 7 and 8 and page 18, lines 8-17).

The session is a quality of service session between the correspondent node and the mobile node (See e.g., page 18, lines 8-17). The method includes the step of generating (160, 162), in the foreign network, a modified reply message (79, see Fig. 6 (d)) of an Internet Protocol packet having a source address (115) of the mobile node's care-of address in place of the mobile node's home address (114) and having a destination address (117) of the correspondent node (See e.g., page 19, line 15, to page 20, line 4). The method also comprises the step of transmitting (162) the modified reply message (See e.g., page 19, lines 22-25).

Independent claim 16 relates to a system (See e.g., Fig. 7). The system is configured to support a session (page 18, lines 15 - 17). The system comprises a correspondent node (10), a mobile node (8) having a home address in a home network (2) and being temporarily connected at a care-of address in a foreign network (6), and a proxy device (144), in the foreign network (See e.g., page 17, lines 1 - 21; page 19, line 11, to page 20, line 4). The proxy device (144) is associated with the mobile node (8) for

generating a modified reply message (79, see Fig. 6 (d)) of an Internet Protocol packet having a source address (115) of the mobile node's care-of address in place of the mobile node's home address (114) and having a destination address (117) of the correspondent node (See e.g., page 19, line 11, to page 20, line 4). The session is a quality of service session between the correspondent node and the mobile node (See e.g., page 18, lines 8 – 17).

vi) Grounds of rejection to be reviewed on appeal

- A) The Final Office Actions states that claims 1 2, 5 8, 10, and 21 are obvious over a combination of:
 - U.S. Patent 6,477,644 of Turunen (Herein, referred to as Turunen.),
 - U.S. Patent 5,790,789 of Suarez (Herein, referred to as Suarez.), and
- U.S. Patent 7,006,472 of Immonen et al (Herein, referred to as Immonen.) as applied therein.
- B) The Final Office Actions states that claims 16 18 and 20 are obvious over a combination of Turunen, Suarez, and Immonen as applied therein.
- C) The Final Office Actions states that claims 3, 4, 11 and 19 are obvious over a combination of Turunen, Suarez, Immonen, and of U.S. Patent 5,903,735 of Kidder et al (Herein, referred to as Kidder.) as applied therein.

vii) Argument

(A) Argument with respect to incorrectness of Grounds of Rejection (A) Claim 1

The obviousness rejection is improper, because it relies on Immonen or a document in the priority chain thereof as shown on its cover page, and said documents are not proper prior art for pending claims 1-8, 10-11, and 21.

At page 3, last sentence, and page 4, first and second sentences, the Final Office Action clarifies that it relies on Immonen to teach the "quality of service" limitation recited in pending claim 1. As explained below, Immonen is not proper prior art for obviousness rejections of pending claim 1. In particular, while an obviousness rejection

may be based on prior art under any subsection of 35 U.S.C. § 102 (see e.g., M.P.E.P. 2141.01 I), Immonen is not prior art herein any subsection of 35 U.S.C. § 102.

Prior to discussing the specific sections of 35 U.S.C. § 102, Applicants describe relevant dates for the present application and for documents in the priority chain of Immonen. With respect to the present application, it was filed in the U.S. on Feb. 24, 2000 and claims priority to European Patent Application No. 99301481.0, which was filed on Feb. 26, 1999. Since the priority European Application supports pending claims pending claims 1 – 8, 10 – 11, and 21, these claims are entitled to an effective date of invention of Feb. 26, 1999. With respect to the documents in the priority chain of Immonen, Immonen was a national filing, on Oct. 15, 2001, from PCT application PCT/EP99/07718, which was filed on Aug. 27, 1999. The PCT application claims priority to foreign GB Application 9818873, filed Aug. 28, 1998, and to foreign GB Application 9819175, filed Sept. 1, 1998. The PCT Application was published, i.e., as PCT Publ. No. WO00/13436, on March 9, 2000.

Below, Applicants demonstrate that the above-listed documents in the priority chain of Immonen are <u>not</u> proper prior art under subsections (a) -(g) of 35 U.S.C. § 102.

With respect to Section 102(a), no document in the priority chain of Immonen is prior art, because PCT Publ. No. WO00/13436 was published on March 9, 2000, which is after the U.S. filing date of Feb. 24, 2000 for the present application. Also, the Final Office Action provides no evidence that any other document in the priority chain of Immonen was published prior to the above-described effective date of invention.

With respect to Section 102(b), no document in the priority chain of Immonen is prior art, because PCT Publ. No. WO00/13436 was published on March 9, 2000, which is after the U.S. filing date of Feb. 24, 2000 for the present application. Also, the Final Office Action provides no evidence that any other document in the priority chain of Immonen was published, at least, one year prior to the above-described effective date of invention.

With respect to Sections 102(c), 102(d), 102(f), and 102(g), the Final Office Action gives no evidence that any document in the priority chain of Immonen is prior art.

With respect to Section 102(e), no document in the priority chain of Immonen is prior art. In particular, 35 U.S.C. § 102(e) relates to prior art associated with published U.S. and PCT applications filed prior to the invention date and to U.S. patents issuing from U.S. applications filed prior to the invention date. In the present case, the U.S. application, from which Immonen issued, and the PCT application to which Immonen claims priority were both filed after the above-described effective date of invention, i.e., Feb. 26, 1999. For that reason, no document in the priority chain of Immonen is prior art under Section 102(e).¹

For the above-described reasons, no document in the priority chain of Immonen is proper prior art for pending claim 1. Thus, the obviousness rejection of pending claim 1 is improper and should be withdrawn.

Claims 2 - 8, 10 - 11, and 21

Claims 2 - 8, 10 - 11, and 21 are non-obvious over the above combination, as applied by the Final Office Action, at least, by their dependence on independent claim 1.

(B) Argument with respect to incorrectness of Grounds of Rejection (B) Claim 16

The obviousness rejection is improper, because it relies on Immonen and/or documents in the priority chain of Immonen as shown on its cover page, and said documents are not proper prior art for pending claims 16-20.

At page 10, lines 2-9, the Final Office Action clarifies that it relies on Immonen to teach the "quality of service" limitation recited in pending claim 16. As explained below, Immonen is not proper prior art for obviousness rejection of pending claim 16. In particular, while an obviousness rejection may be based on prior art under any subsection of 35 U.S.C. § 102 (see e.g., M.P.E.P. 2141.01 I), Immonen is not prior art under any subsections of 35 U.S.C. § 102.

Prior to discussing the specific sections of 35 U.S.C. § 102, Applications mention relevant dates for the pending claims 16 – 20 and for documents in the priority chain of Immonen. The present application was filed in the U.S. on Feb. 24, 2000 and claims

Also, the PCT Application in the priority chain of Immonen was filed before Nov. 29, 2000. For that reason, the publication of the PCT application is not Section 102(e) prior art. See M.P.E.P. § 2136.03 II.

priority to European Patent Application No. 99301481.0, which was filed on Feb. 26, 1999. Since the priority European Application supports the pending claims 16 – 20, these claims are entitled to an effective date of invention of Feb. 26, 1999. In the priority chain of Immonen, Immonen was a national filing, on Oct. 15, 2001, from PCT application PCT/EP99/07718, which was filed on Aug. 27, 1999. The PCT application claims priority to foreign GB Application 9818873, filed Aug. 28, 1998, and to foreign GB Application 9819175, filed Sept. 1, 1998. The PCT Application was published, i.e., as PCT Publ. No. WO00/13436, on March 9, 2000.

Below, Applicants demonstrate that the above-listed documents in the priority chain of Immonen are <u>not</u> proper prior art under subsections (a) -(g) of 35 U.S.C. § 102.

With respect to Section 102(a), no document in the priority chain of Immonen is prior art, because PCT Publ. No. WO00/13436 was published on March 9, 2000, which is after the U.S. filing date, i.e., Feb. 24, 2000, for the present application. Also, the Final Office Action provides no evidence that any other document in the priority chain of Immonen was published prior to the above-described effective date of invention.

With respect to Section 102(b), no document in the priority chain of Immonen is prior art, because PCT Publ. No. WO00/13436 was published on March 9, 2000, i.e., after the U.S. filing date of Feb. 24, 2000 for this application. Also, the Final Office Action provides no evidence that another document in the priority chain of Immonen was published, at least, one year prior to the above-described effective date of invention.

With respect to Sections 102(c), 102(d), 102(f), and 102(g), the Final Office Action gives no evidence that any document in the priority chain of Immonen is prior art.

With respect to Section 102(e), no document in the priority chain of Immonen is prior art. In particular, 35 U.S.C. § 102(e) relates to prior art associated with published U.S. and PCT applications filed prior to the invention date and to U.S. patents issuing from U.S. applications filed prior to the invention date. In the present case, the U.S. application, from which Immonen issued, and the PCT application to which Immonen claims priority were both filed after the above-described effective invention date, i.e.,

Feb. 26, 1999. For that reason, no document in the priority chain of Immonen is prior art under Section 102(e) herein.²

For the above-described reasons, no document in the priority chain of Immonen is proper prior art for the pending claim 16. Thus, the obviousness rejection of pending claim 16 is improper and should be withdrawn.

Claims 17 - 18 and 20

Claims 17 - 18 and 20 are non-obvious over the above combination, as applied by the Final Office Action, at least, by their dependence on independent claim 16.

(C) Argument with respect to incorrectness of Grounds of Rejection (C)

Claims 3-4 and 11 are non-obvious over the combination of references, as applied by the Final Office Action, at least, by their dependence on independent claim 1.

Claims 19 is non-obvious over the combination of references, as applied by the Final Office Action, at least, by its dependence on independent claim 16.

Conclusion

For the above reasons, allowance of all the claims presently in the application is respectfully requested, as is passage to issuance of the present application.

Respectfully submitted,

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² Also, the PCT Application in the priority chain of Immonen was filed before Nov. 29, 2000. For that reason, the publication of the PCT application is not Section 102(e) prior art. See M.P.E.P. § 2136.03 II.

viii) Claims appendix

1. (Previously Presented) A method of establishing a session between a correspondent node and a mobile node, the mobile node having a home address in a home network and being temporarily connected at a care-of address in a foreign network,

the session being a quality of service session between the correspondent node and the mobile node,

the method comprising the steps of:

generating, in the foreign network, a modified reply message of an Internet

Protocol packet having a source address of the mobile node's care-of address in place of
the mobile node's home address and having a destination address of the correspondent
node; and

transmitting the modified reply message.

2. (Original) The method of claim 1, further comprising the steps of:

receiving, in the home network, a request message having a source address of the correspondent node and a destination address of the mobile node's home address;

creating a modified request message by replacing the destination address of the request message with the mobile node's care-of address; and

transmitting the modified request message to the foreign network, whereby the modified reply message is generated responsive to the modified request message.

3. (Original) The method of claim 2,

wherein the step of generating the modified reply message is carried out by proxy device in the foreign network, the proxy device being associated with the mobile node; and

further comprising the steps of:

responsive to receipt of the modified request message at the proxy device, sending a quality of service indication signal to the mobile node, whereby the modified reply message is generated responsive to receipt of a quality of service acknowledgement from the mobile node.

- 4. (Original) The method of claim 2, wherein the quality of service session is an RSVP session; the request message is a Path message; and the modified reply message is a Reservation message.
- 5. (Original) The method of claim 1, further comprising the steps of: receiving, in the home network, the modified reply message; creating a further modified reply message by replacing the source address with the mobile node's home address; and transmitting the further modified reply message.
- 6. (Original) The method of claim 5, wherein the correspondent node generates the request message and receives the further modified reply message.
- 7. (Original) The method of claim 5, wherein:
 the correspondent node is associated with a correspondent proxy device, whereby:
 the correspondent proxy device generates the request message responsive to a
 quality of service request from the correspondent node; and

the correspondent proxy device generates a quality of service confirmation responsive to receipt of the further modified reply message.

8. (Original) The method of claim 1, wherein the step of generating the modified reply message is carried out in the mobile node.

9. (Canceled)

10. (Original) The method of claim 1, in which the step of generating the modified reply message is carried out by a proxy device in the foreign network, the proxy device being associated with the mobile node.

11. **(Original)** The method of claim 1, wherein the quality of service session is an RSVP session; and the modified reply message is a Reservation message.

12-15 (Canceled)

16. (Previously Presented) A system configured to support a session, comprising:

a correspondent node;

a mobile node having a home address in a home network and being temporarily connected at a care-of address in a foreign network,

a proxy device, in the foreign network, the proxy device associated with the mobile node for generating a modified reply message of an Internet Protocol packet having a source address of the mobile node's care-of address in place of the mobile node's home address and having a destination address of the correspondent node,

the session being a quality of service session between the correspondent node and the mobile node.

- 17. (Original) The system of claim 16, wherein the proxy device is located in the mobile.
- 18. (Original) The system of claim 16, wherein the proxy device is located outside the mobile node and coupled to the mobile node.
 - 19. (Previously Presented) The system of claim 16, wherein; the quality of service session is an RSVP session; modified reply message is a Reservation message.
- 20. (Previously Presented) The system of claim 16, the system being a mobile IP environment.

21. **(Previously Presented)** The method of claim 1 wherein the step of generating the modified reply message comprises:

generating a reply message having a source address of the mobile node's home address and a destination address of the correspondent node; and

replacing the source address with the mobile node's care-of-address, thereby generating the modified reply message.

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ix) Evidence appendix

None.

x) Related proceedings appendix

None.